Innovative Advancements in Fiber Deployment

Crown Castle in Partnership with:
City of Los Angeles: Nazila Cruz
City of Elk Grove: Shoaib Ahrary

March 2024
Agenda

1. Rapid Overview
2. Rapid vs Boring
3. City of Elk Grove
4. City of Los Angeles
5. Questions and Answers
We’ve built on our network deployment experience to create **added benefits**.

- **Safer**
  - No risk of utility strikes

- **Simpler**
  - No need to plan for road, lane or sidewalk closures with a smaller crew and equipment

- **Faster**
  - One-pass process enables simultaneous start and restoration

- **Greener**
  - Fully-recyclable waste and reduced noise pollution
We partnered with Corning on a new process that makes network expansion less disruptive.

- Meet the highest standards of safety
- Use a simplified process
- Minimize disruption
- Blend into the existing streetscape

Corning, a Fortune 500 company, is one of the world’s leading fiber manufacturers.
Introducing a better way to deploy fiber.

Rapid Connect uses a small moving crew and safety vehicles to simultaneously cut, place and seal underground fiber—without shutting down traffic.
Rapid Connect is less invasive.

Traditional trenching
2' wide x 3' deep

Microtrenching
2" wide x 12”–26” deep

Rapid Connect
2" x .2" grind & .25" x .575" slot

Narrow width means tires won’t disrupt sealant.

Shallow depth eliminates risk of accidental utility strike.

Produces minimal waste which is easily captured and recycled.
Rapid vs. Boring
## Key Rapid Milestones

<table>
<thead>
<tr>
<th>Year</th>
<th>Completed Permits</th>
<th>Total feet</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>6</td>
<td>530'</td>
<td>0.60</td>
</tr>
<tr>
<td>2023</td>
<td>38</td>
<td>15,760'</td>
<td>2.98</td>
</tr>
<tr>
<td>2024</td>
<td>5</td>
<td>6,188'</td>
<td>1.17</td>
</tr>
</tbody>
</table>

**2024 Pipeline**

<table>
<thead>
<tr>
<th>Year</th>
<th>Permits</th>
<th>Total feet</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>2024</td>
<td>74</td>
<td>31,056'</td>
<td>5.88</td>
</tr>
</tbody>
</table>

- Rapid Internally Approved Construction Standard for Crown Castle.
Experience with Rapid in Los Angeles

- Fast & Efficient installation
  - Immediate restoration compared to Micro/open-Trench.
  - Less impact to community and traffic.
- Minimal and shallow surface disruption with no subsurface disruption.
  - Less structural damage to AC and Concrete surfaces.
  - Increased longevity of streets over other methodologies.
- Less overall construction and Street Damage Restoration fees (SDRF).
  - Allows telecommunications companies to provide additional services.
- Minimal to zero waste with recyclable spoils.
- No surface limitations Rapid can be installed on concrete and AC surfaces.
- Faster and more efficient coordination with any conflicting excavation.

“The lower installation cost and time makes it easier to get connectivity to underserved communities, which is even more important in today’s virtual work and services.” – Ted Allen, Los Angeles City Engineer & Deputy Director BOE
## Key Rapid Milestones

<table>
<thead>
<tr>
<th>Year</th>
<th>Completed Permits</th>
<th>Length</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>1</td>
<td>2,553’</td>
<td>0.48 Miles</td>
</tr>
<tr>
<td>2023</td>
<td>4</td>
<td>50,454’</td>
<td>9.56 Miles</td>
</tr>
<tr>
<td>2024 Pipeline</td>
<td>1 Permit</td>
<td>4,700’+/-</td>
<td>0.89 Miles</td>
</tr>
</tbody>
</table>

- **Speed** – 10 miles in less than 3 months
- Additional client investment into Elk Grove
City of Elk Grove

Experience with Rapid in Elk Grove

• Opportunity for Elk Grove to partner with Crown Castle for its own connectivity goals
• Little to no Dust and noise pollution
  - Clean and Quick operation
    • Reduction in residential complaints 0 from Rapid connect.
• Enhanced connectivity around populated areas.
• Crown castles responsiveness to issues and oversight on Contractors.
  - Aided with the city inspection staff.
Thank you

For further information please contact:

Daniel Acosta
(949) 930-7457
Daniel.Acosta@crowncastle.com